genera *Erynnis* (*Carcharodus*) and *Hesperia* (*sensu lato*), that an insect erroneously recorded by me in the *Ent. Record*, vol. xvii., p. 150, as *Carcharodus lavaterae* is a new species closely related to, but distinct from, *Erynnis stauderi*, Rev., which was described and figured in the last fascicule of vol. ii. of the *Bulletin of the Lepidopterological Society of Geneva*. The new species, to which Dr. Reverdin has given the specific name of *rhamses*, Rev., will be described and figured in the next number of the above-mentioned *Bulletin*. Further, I may add that specimens of what I took to be *Erynnis* (*Carcharodus*) *altheae* from the Cedars of Lebanon (August) and the Constantinople district (May, June and August) prove, after examination of the genitalia, to be the newly described *E. orientalis*, Rev., which was first described from Greek specimens. Dr. Reverdin informs me that, as far as he is able to judge from the small amount of material I have been able to send him, there is a distinct seasonal difference between the first and second broods of this insect.

The *Hesperia* resembling a "very heavily spotted *phlomidis*," to which I have referred in the *Ent. Record*, vol. xvii., p. 150, and vol. xviii., pp. 48, 307, 308, and which occurs sparingly in the desert East of the Nile near Cairo, has been examined by Dr. Reverdin and proves to be a new species, which will also be described by Dr. Reverdin and and figured by M. Culot in the next number of the Geneva *Bulletin*, and to which the former has given the name of *amenophis*. Finally I may note that the examination of the genitalia of Constantinople specimens of *H. amoricanus*, sent by me to Dr. Reverdin for examination, prove to be in some cases *H. armoricanus*, in others *H. persica*, which Dr. Reverdin described in the last number of the *Bulletin* as being possibly a new species, possibly a form of *H. armoricanus*. Dr. Reverdin writes, "les *armoricanus* ont les uns la valve d'*armoricanus* typique et d'autres celle de *persica*, mais malheureusement ces deux categories ne répondent pas aux deux formes à bord abdominal gris ou blanc et il y a un mélange sans correspondance. Celà me rend encore plus perplexe que jamais sur la valeur de cette forme particulière de la valve et je ne sais plus du tout si *persica* est ou non une forme d'*armoricanus*."

May I terminate by thanking Dr. Reverdin for the invaluable assistance he has given me and many another entomologist in the study of this difficult group of butterflies, and by expressing the hope that he may long continue to elucidate the relationships of the puzzling "skippers."

Notes on the Synonymy of Boisduval's N. American species of Lycænidæ.

By J. McDUNNOUGH, Ph.D.

Mr. Bethune-Baker has asked me to contribute a paper dealing with the synonymy of certain species of *Lycaenidae*, described from California by Boisduval in two papers appearing in *Ann. Soc. Ent. Fr.*, (2), x., 1852, and *Ann. Soc. Ent. Belg.*, xii., 1869. M. Charles Oberthür, in one of the most recent numbers of his *Études de Lépidoptérologie comparée*, has published excellent figures of the actual type specimens still in existence in his wonderful collection; these types I had the privilege of examining whilst on a recent visit to Europe and can vouch for the accuracy of the reproduction. Thanks to M. Oberthür,

a problem that has vexed American entomologists for the past half century, *viz.*, the correct identification of Boisduval's species is at last satisfactorily disposed of.

Taking Dr. Dyar's list as a basis (*Bull. U.S. National Mus.*, no. 52, 1902), I shall offer a few notes on the various species, following the order of the above catalogue; the material at my disposal is contained in the Barnes' collection.

Theclinæ.

Habrodias grunus, Bdv.—The generally accepted notion of this species proves correct; the ground colour on the underside of the type specimens is rather yellower than anything I have before me, which may possibly point to a local form; the species varies considerably in the distinctness of the marginal lunules.

Thecla borus, Bdv.—This is at present listed as a synonym of *californica*, Edw., and I think correctly so. Unfortunately none of Edwards' types of *Lycaenidae* in the Edwards' collection (now in the Carnegie Museum at Pittsburg) are marked as such. Under *californica* there are 1 ♂ and 2 ♀s, labelled "Calif. (O.B.)," 2 ♂s, "Wash. Terr. (Morrison)," and 1 ♀, "Vanc. Is." These all belong to a form with greatly reduced red marginal lunules on secondaries and do not correspond with the original description in this particular, so can hardly be considered as types. *T. cygnus*, Edw., described from a ♀ from Nevada (Hy. Edwards), is represented in the Edwards' collection by 1 ♂, "Nevada," and 1 ♀, "Calif.," which are identical with *borus*, Bdv. It is possible that Edwards, having lost the true type of *californica*, or returned it to Dr. Behr, and misidentified it at a later date, redescribed the species under the name of *cygnus*. For the present, in any case, the synonymy as given in Dyar's list will have to stand.

Thecla auretorum, Bdv.—This species is unknown to me; it is a tail-less form in the ♂ sex, apparently closest to *tacita*, Hy. Edw. Skinner (*Ent. News*, xxv., 47) lists *spadix*, Hy. Edw., as a synonym, and Comstock (*Jour. N. Y. Ent. Soc.*, xxii., 34) places both *tetra*, Behr and *spadix*, Edw., in the synonymy. I have not seen the types of either species but the original descriptions of both certainly call for something very dissimilar to Oberthür's figure, so for the present I can see no reason for regarding these three names as applying to a single species.

Thecla sylvinus, Bdv.—In the *Bull. Brooklyn Ent. Soc.*, ix., 32, Mr. Wm. Comstock has an excellent article on this species and its allies with which we entirely agree. He lists the synonymy as follows:—

sylvinus, Bdv., 1852.	... ...	San Francisco, Calif.
var. *itys*, Edw., 1882.	... ...	Prescott, Ariz.
var. *putnami*, Hy. Edw., 1876.	...	Utah.

I have not seen much material from the lowlands of California and have not been able to match Boisduval's type exactly; specimens from higher altitudes in California tend apparently to a diminution in the size of the spots on underside; the upperside is quite variable in the amount of fulvous suffusion on secondaries; the species may be distinguished from *californica*, Edw., by the fact that the blue patch

at anal angle of hindwings on underside is not surmounted by a red lunule, nor do the red lunules extend so far towards costal margin, being often reduced to a single one preceding the blue patch.

Regarding *dryope*, Edw., I might state that the specimens in the Edwards' collection cannot be regarded as types as they bear labels not coinciding with the original description. The description was drawn up from a single ♀ from "Plain Co., Colorado" in the Hy. Edwards' collection; this locality was later (*Tr. Am. Ent. Soc.*, iii., 193) corrected to "Placer Co., Calif." and the ♂ description added. It is probable that the two metatypes mentioned by Mr. Comstock as existing in the Hy. Edwards' collection in the American Museum at New York are really the true types. We have not examined these but are willing to accept Mr. Comstock's statement that they are distinct from *sylvinus*, Bdv., although closely related. The specimens in the Edwards' collection at Pittsburg belong to what we consider the mountain race of *sylvinus*, *i.e.*, the form with reduced markings on the underside.

Thecla saepium, Bdv.—This species is well known and needs no comment; the type shows considerable white markings to the line of spots on underside, but this is merely individual, a long series before me from various localities showing all degrees of variation in this respect.

Thecla nelsoni, Bdv.—The general usage of this name proves to be perfectly correct and further comment is superfluous. We can see nothing that would indicate that *exoleta*, Hy. Edw., and *muiri*, Hy. Edw., are anything more than mere individual aberrations, the one with nearly obsolete markings, the other with the markings better defined than in the type.

Incisalia iroides, Bdv.—I consider that Comstock is correct (*Jour. N. Y. Ent. Soc.*, xxii., 34), in not accepting Skinner's statement that *iroides* is a synonym of the Eastern *augustus*, Kirby (*Ent. News*, xxv., 47); the two are no doubt closely allied, but I might point out that *augustus* shows decidedly checkered fringes in most instances, whilst in *iroides*, the fringes are almost unicolorous; we are probably at least dealing with racial forms.

Incisalia eryphon, Bdv.—Closely related to *niphon*, Hbn.; our series of both species are not long enough to point to any one feature which might be used to separate the two forms; possibly the dentate nature of the subterminal black line of underside in *eryphon* may be distinctive, but careful breeding will probably decide the question.

Callophrys dumetorum, Bdv.—This is the N. American representative of the European *rubi*, Linn. In *Ent. News*, xxiii., 3, Messrs. Haskin and Grinnell have endeavoured to point out the differences between the two forms, and while, to judge from the material before me, their conclusions are not entirely correct, I quite concur with them in holding the name *dumetorum*, Bdv., separate from *rubi*, L.; *viridis*, Edw., will remain as a synonym. As pointed out in the article above mentioned, Middle Californian specimens are typical showing the white spots on underside very distinctly; Southern

Californian specimens on the other hand, notably from San Diego, show hardly a trace of white; in the long series before me the ♂ s are constantly deep smoky on the upperside, the ♀ s shaded with rufous. I only know this species from California; the record from Colorado (Barnes, *Ent. News*, xi., 330) is incorrect; the specimens on which it was based are before me and should be referred to *apama*, Edw., being a form of this species with greatly reduced markings on underside; certain better marked specimens in the series however render the reference certain.

Messrs. Haskin and Grinnell would also refer *affinis*, Edw., to the synonymy of *dumetorum*, but incorrectly so in my opinion. Both sexes, as stated by Edwards, are "glossy red-brown," and the fringes on the underside of secondaries are pure white outwardly and show none of the checkered appearance usually found to a greater or less degree in *dumetorum*; we only know *affinis* from Silver Lake, Utah; it is probably a high altitude form.

CHRYSOPHANINÆ.

Tharsalea arota, Bdv.—This form is closely related to *virginiensis*, Edw., but is smaller with duller coloration on underside; the white submarginal band especially is much less prominent and the primaries show none of the bright orange suffusion found in *virginiensis*; we only know the specimen from California.

Gaeides xanthoides, Bdv.—A well-known species; the markings of underside are not so cleanly cut as in *dione*, Scud., from the Central Plain region, the dots in *xanthoides* usually showing a central whitish shade.

Gaeides gorgon, Bdv.—The species has always been correctly identified; it is apparently not very common.

Epidemia zeroë, Bdv.—This becomes a synonym of *mariposa*, Reak.; owing to a peculiar error this name had become interchanged with *nivalis*, Bdv., although the original description is perfectly clear regarding both species.

Epidemia nivalis, Bdv.—Boisduval's name becomes valid for the species heretofore known as *zeroë*, with *ianthe*, Edw., as a synonym. This latter form is slightly better marked on underside than typical *nivalis*, but individuals vary in this respect.

Epidemia halloides, Bdv.—A common species and widespread; *castro*, Reak., is apparently correctly listed as a synonym.

Heodes hyppophlaeas, Bdv.—This species is not figured by Oberthür, nor have I any note on the type; the usually accepted determinations are apparently correct, although I have seen no specimens from California.

LYCÆNINÆ.

Satyrium susa, Bdv.—This species has been correctly listed as a synonym of *fuliginosa*, Edw.; the markings on the underside are quite variable in distinctness; I have taken the species on Mt. Hood, Oregon, at an altitude of 6000-7000 ft. in August quite commonly.

Cupido heteronea, Bdv.—This species has presented no difficulty; the peculiar purplish reflection on upperside is quite characteristic.

Cupido icarioides, Bdv.—The species is apparently common all through the higher regions of California and is very variable on the underside; the type shows the black dots distinct, white ringed, the submarginal ones preceded by slight white arrow-like dashes; many specimens before me lack these dashes and others again show a tendency towards obsolescence of the black markings on secondaries, the dots being largely white with minute black centres, and in some instances almost all traces of these may be lost, on the primaries the black spots are usually considerably larger than on secondaries and show less tendency towards obsolescence. The ♀s usually show a considerable amount of blue suffusion on upperside and traces of reddish marginal band near anal angle of secondaries.

I consider *fulla*, Edw., a synonym of this species; it was described from one ♂ and one ♀ from California, obtained from Dr. Behr and the types are not in the Edwards' Collection at Pittsburg; the series there contains specimens from California, Utah and Colorado, all labelled *fulla* in Edwards' handwriting, and specimens before me which I have compared with Edwards' series are certainly *icarioides*, Bdv.; *lycea*, Edw., from Colorado, is so close that it would be hard to point to any definite point of distinction as both forms vary in the same manner; it will do no harm, however, to hold the name for Colorado specimens. *Pembina*, Edw., at present listed as a synonym, I do not know; the types should be in the Hy. Edw. Collection. The remaining names in the synonymy of *icarioides* are apparently misplaced; *pardalis*, Behr, *erymus*, Bdv., and, I think, *maricopa*, Reak., all apply to a species distinct from *icarioides*, which I will deal with later; *daedalus*, Behr, is stated by Mr. Comstock to be close to *saepiolus*, Bdv., it is thus placed in the Barnes' Collection, but on what grounds I know not; Behr's types were all destroyed in the San Francisco fire and his short Latin diagnosis is insufficient to determine the species; however, it is possible that some of the Eastern collections contain material that has been identified by Dr. Behr, which has led to the above association. I can see nothing which would warrant a separation of *phileros*, Bdv., from *icarioides*; Dr. Boisduval was of the opinion, when he described *phileros*, that it was merely a local race of *icarioides*, but I fail to see on what grounds even this supposition could be based; long series before me from various Californian localities show quite as much affinity to one as to the other, and specimens can be picked out of one series to exactly match either type. Much careful study is still necessary to determine the local and racial variations of this puzzling species, but for the present we offer the following synonymy based on the above remarks:—

icarioides, Bdv., 1852 ... ... Calif.
phileros, Bdv., 1869.
fulla, Edw., 1870.
fuliginosa, Stkr. (nec Edw.), 1874.
mintha, Edw. (?), 1870.
var. *lycea*, Edw., 1864 ... Colorado.
var. *pembina*, Edw., 1862 ... Manitoba and N.W. Canada.

Cupido erymus, Bdv.—The species is quite distinct and apparently rare, or at least local. I consider it will fall as a synonym of *pardalis*, Behr. Behr's description is short, but he fortunately states that the species shows great resemblance to the European *alcon:* this is very true of specimens before me, which I have compared with Boisduval's types, and so removes most of the doubt in my mind concerning the correctness of the above synonymy. I have not seen the type of *maricopa*, Reakirt, recently; it is a ♀ without any blue on upperside, and from my notes the name may also apply to the same species as *erymus*, but a further study of the type will be necessary before I can definitely decide this point. Of this species there are only one ♂ and three ♀ s before me from Sonoma Co., California, but they are at once separable from *icarioides* by their darker undersides with heavy rows of submarginal and median black spots; once seen the species is not easily confounded with any other.

Cupido saepiolus, Bdv.—This species and *rufescens*, Bdv., present certain features which are rather puzzling and which will require careful study and breeding before any definite statements can be made; the group may be readily known by the presence of a distinct dark discal dash on upperside of forewings in the ♂ and small reddish subterminal lunules near anal angle on underside of hindwings; the ♂ types of *saepiolus* and *rufescens* are very similar, the latter being rather paler both on upper- and underside and with very narrow border to wings on upperside compared with that of *saepiolus:* the ♀ s present greater differences of coloration, *rufescens*, as the name expresses, being suffused with brown, whereas *saepiolus* is darker with blue basal shading.

All the ♀ s before me from California, including those from high altitudes, belong to the *rufescens* form, whereas the ♂ s seem closer to *saepiolus:* the *saepiolus* form of the ♀ is before me from localities in Arizona, Idaho, and Colorado, *i.e.*, the Rocky Mountain district. In my estimation we have only one species, but whether these two names may be applied to geographical races, or whether they merely represent individual variation, is a question that will require study on the part of collectors in California. As has been already stated *daedalus*, Behr, is said to belong to this group; as Dr. Behr described the species at the same time as he did *aehaja*, which is undoubtedly a synonymn of *saepiolus*, and as he makes no mention in the short Latin diagnosis of either the discal streak of primaries above or the reddish tinge to submarginal lunules below, I have my doubts concerning this association. Behr's description reads as follows:—"Icarioidi similis sed subtus, quæ puncta in Icarioide sunt rotundissima, in Dædalo sunt transverse *producta* lineaque discoidalis alarum posticarum, quæ in Icarioide deest et pro qua macula alba subtriquetra inclitat, hac in specie *linea transversa distinctissime nigra* vindicatur." The three specimens of the type lot were collected in the Alpine region around the head waters of the Tuolumne River, *i.e.*, at an altitude of over 10,000ft.

The above description would fit partially with either *icarioides*, *saepiolus*, or *pheres*; as all these names date back to 1852 it is evident that *daedalus* will in any case be a synonym so its exact position becomes fairly unimportant.

Cupido pheres, Bdv.—Typical *pheres* is readily recognisable by its peculiar shade of blue at base of wings in the ♀ and the single row of white round spots on underside of secondaries; the outer margin of secondaries in ♂ is at times slightly suffused with pale grey-blue as is usual in the ♀.

There is a tendency for the white spots of the underside to become quite distinctly pupilled with black, and ♂ specimens of this form are very hard to separate from those forms of *icarioides* where the black spots tend to obsolescence. A fairly safe means of separation seems to be found on the upperside of hindwings, which in ♂ *icarioides* (at least in Californian specimens) shows a more or less distinct row of marginal black spots lacking in *pheres*, for the most part entirely, or only very faintly visible.

Evius, Bdv., at present listed as a variety of *pheres*, I should be inclined to remove from this association and place closer to *icarioides*: if M. Oberthür's figure of the ♀ be correct (I have no note on this), then it probably will prove a good species; the ♂ very closely resembles a small *icarioides*; the species was described from the southern portion of California, and I have nothing before me that I could definitely associate with this name.

Nomiades xerces, Bdv.—Readily recognizable by the large white unpupilled spots on underside of both wings; of late years Californian collectors are disposed to regard this as merely a form of what has generally gone by the name of *antiacis*, Bdv. (cf. Williams, *Ent. News*, xix., 476; Huguenin, *Ent. News*, xxv., 326). I think this is correct, only the name *antiacis* must be changed to *polyphemus*, Bdv., which can best be characterised as *xerces* with prominent black pupils to the white spots of underside; as Williams has stated, all kinds of intergrades between the two forms occur; *mertila*, Edw., is an aberration of *polyphemus* in which on underside of forewings the discal dash is joined to the base of wing by a white streak. Regarding *antiacis*, my own opinion, from an examination of the type alongside the type of *polyphemus*, was that it was an aberrational form of this species, but in spite of much material before me I fail to match M. Oberthür's figure exactly; for the present therefore the name must remain doubtful.

Concerning *behri*, Edw., Mr. Williams regards this as a good species (*loc. cit.*, p. 482); I have specimens of what is evidently Mr. Williams' *behri* before me from San Francisco and concur with him that it is distinct from *polyphemus* and more closely related to *oro*, Scudder, than anything else; there is, however, some doubt as to just what *behri*, Edw., is; the type specimens were received from Dr. Behr and may have been returned to him; my notes on the specimens at Pittsburg made several years ago are as follows: "In Edwards' Coll. two ♂ s and two ♀ s from California labelled *behrii* in Edwards' handwriting. The ♂ s differ from each other in depth of blue and breadth of marginal border; the underside shows traces of submarginal spots which would preclude association with *antiacis*; the ♀ s look like the black-spotted form of *xerces*."

A form of Mr. Williams' *behri* from Southern California with much reduced spots on underside of hindwings has been commonly known as *polyphemus* by various Californian collectors; this is an error as a reference to M. Oberthür's excellent figure at once shows.

Orcus, Edw., is evidently an aberration with greatly reduced maculation on underside, but of what species I cannot say as I have not seen the type; it should be in the Hy. Edwards' Collection.

Phaedrotes piasus, Bdv.—The species has been completely misidentified and placed as the Californian form of *ladon*, Cram. (*pseudargiolus*, B. and Le C.). In reality the name applies to the same species as that which has been known as *sagittigera*, Feld., and has priority over this name.

As far as I can judge by the material before me there are distinctly two forms of this species; the one has the underside rather pale grey with the white area rather diffuse and not sharply defined outwardly by dark subterminal lunules; this is typical *piasus*, and to judge by Felder's figure (I do not know the type) *sagittigera*, Feld., also; we have a series of this form from the higher mountain regions of Tulare Co., California, the other form has the underside much darker, the white area more distinct and sharply defined and the subterminal dark lunules of secondaries more prominent and often tinged with reddish; this form is before me from the southern coast region (Los Angeles) and the Rocky Mountains extending from New Mexico to British Columbia; *catalina*, Reak., with *rhaea*, Bdv., as a synonym would apply to the coast form of S. California, the vicinity of Los Angeles being practically the type locality for both names, whilst if necessary to differentiate the Rocky Mt. form, *dannia*, Edw., may still be used; the only point of difference I can point out between Rocky Mt. specimens and those from S. California is that the former show black ocelli to the submarginal lunules preceding the anal angle of secondaries, which are absent in the few specimens before me from the neighbourhood of Los Angeles.

I do not know to which form *lorquini*, Behr, and *riaca*, Edw., would refer; very possibly they would become synonyms of typical *piasus*.

Philotes regia, Bdv.—This is correctly listed as a synonym of *sonorensis*, Feld.

Agriades nestos, Bdv.—This name and also *tehama*, Reak., are correctly placed as synonyms of *podarce*, Feld.

Rusticus enoptes, Bdv.—Typical *enoptes* has a broad black border to upperside of both wings, checkered fringes *on primaries only*, and on underside the submarginal lunules tinged with red outwardly, which colour does not form a broad continuous band occupying the whole subterminal space; the ground colour of the underside is greenish-grey. I do not at all concur with Dr. Skinner's opinion (*Ent. News*, xxii., 259) that *enoptes*, Bdv., *glaucon*, Edw., and *blattoides*, Behr, are one species; I imagine that Dr. Skinner has never seen the true *blattoides*: I certainly never had it until last year, when we received a splendid series from an altitude of 11,000 ft. in Tulare Co., California, a spot very close to the type locality of similar altitude. Behr very aptly compared his species with the European *battus=orion*, Pall., and in the heavy *quadrate* black markings of the underside it even surpasses this species; the fringes of upperside are checkered *on both wings* prominently, the outer black border of secondaries tends to break up

into round spots shaded inwardly with reddish-orange; on the underside, apart from the very heavy, almost confluent, black markings, a distinctive feature is a broad black line at base of fringes and a subterminal continuous orange band; the ♀s have a continuous orange band subterminally on upperside of secondaries which does not, however, attain the costa. There is a series of typical *enoptes* before me from the same locality and there is not the least difficulty in at once separating the two species. The status of *glaucon*, Edw., I am unable to determinate at present; it was described from Nevada specimens received from Hy. Edwards and the types may be still in his collection; they are not at Pittsburg, the series of so-called *glaucon* in the Edwards' collection there, being a very heterogeneous assemblage.

A great deal of careful field work will be necessary to work out the correct relationships of the various forms of this group which, apparently, to judge by numerous specimens before us, tends to break up into several geographical races as well as high and low altitude forms.

Rusticus nivium, Bdv.—This is apparently correctly placed as a synonym of *shasta*, Edw.; the types of this latter species, received from Dr. Behr, are not in the Edwards' collection however, and are probably lost, so that the original description is all we have to fall back upon. *Lupini*, Bdv., at present listed as a synonym of *shasta* falls into the *acmon* group.

Rusticus antaegon, Bdv.—This is a synonym of *acmon*, Dbldy. and Hew., as listed; typical *acmon* is distinguished by its pale purplish-blue colour and very narrow black border to primaries.

Rusticus lupini, Bdv.—I consider this a good species; it is at once distinguished from *acmon* (*antaegon*) by its deeper blue colour and much broader black border to primaries. I have before me six ♂s from Tulare Co., California, that are typical; it is apparently more restricted in its distribution than *acmon*. It approaches very close to *monticola*, Clem., but this latter species is of a brilliant greenish-blue on upperside and the dark border of primaries is slightly narrower.

Rusticus philemon, Bdv.—Correctly listed as a synonym of *anna*, Edw. I have long series from various localities in the Sierra Nevada Mts. before me; the black spots on the underside vary in size and the marginal maculation often tends to indistinctness, even more so than in the ♂ type of *philemon*, figured by M. Oberthür; this is, however, merely individual, not racial. The ♀s rarely show any blue scaling on upperside. *Cajona*, Reak., and *argyrotoxus*, Behr, are probably correctly listed as synonyms of *anna*, Edw.; the latter name certainly refers to this species, the type specimens being taken in the Sierra Nevada Mts.

Everes amyntula, Bdv.—Mr. Bethune-Baker has ably treated of this species in the *Ent. News*, Vol. XXIV., 1913, p. 97 *et seq.* and I have nothing further to add to his remarks.

Brephidium exilis, Bdv.—This small and very distinct species has

been correctly identified by American entomologists; I can see no difference between Texan and Californian specimens before me, so imagine that *fea*, Edw., described from Texan material, is correctly listed as a synonym.

In conclusion I would point out that there is still a great deal of very careful work necessary before the synonymy of our N. American *Lycaenidae* is straightened out; thanks to M. Oberthür we are now able to definitely fix the nimotypical form of Boisduval's species; Behr's types being all destroyed, leaves us only his short and often inadequate Latin diagnoses to fall back upon, but fortunately he has stated his type localities more definitely than Boisduval, so that material from these regions will probably be of aid in definite fixation; Reakirt's so-called types are in the Strecker Collection in Chicago and will have to be studied carefully; Edwards' species will probably cause the most confusion as the material which served for a number of his earlier descriptions is apparently not contained in his collection in Pittsburg and may have been returned to the original owners, or lost; if we add to this the unfortunate habit that Edwards had of not labelling his types and of misidentifying his own species at a later date and incorrectly labelling them in his collection as it now stands, one can form some idea of the difficulties to be encountered in a study of the *Lycaenidae*. It is a source of great surprise to me that some of our so-called specialists in Diurnal Lepidoptera have for years been content to leave the nomenclature in this unsatisfactory condition; fifteen years ago, when most of the authors of a large portion of our names were still alive, it would have been a much simpler matter to locate the types, or at least obtain definite information concerning them, but this, alas, has been neglected, and we poor unfortunates of a later generation are left to solve the problems as best, or as badly as, we may, giving our own personal interpretation to the descriptions and paving the way for long and futile discussions on nomenclature in the journals, constant shifting of names, and corresponding disgust on the part of economic and practical entomologists who care less for the law of priority than they do for a stable system of nomenclature.

Mr. Bethune-Baker on the genus Lycænopsis.

By T. A. CHAPMAN, M.D.

I wish to say a word as to how Mr. Bethune-Baker treats my statements as to the genera *Lycaenopsis*, *Cyaniris*, and *Celastrina* (in the *Proc. Zool. Soc.*, 1909, p. 419), in his "Synonymic notes on the *Ruralidae*" in *Ent. Rec.*, vol. xxvi., p. 162.

I have a dim idea that he is poking fun at me, but being a Scotchman, I fear I shall need a surgical operation to enable me to see the point of the joke.

He interprets me as meaning that if *haraldus* to which the generic name *Lycaenopsis* was given, be *not* congeneric with *argiolus*, then the generic name *Lycaenopsis* is to leave *haraldus* and attach to *argiolus*. If such a thesis commended itself to me, my intelligence must be so low, that my not seeing the joke is comprehensible.

If I might, in such suspicious circumstances, venture on a vague